

1 **WHAT IS CLAIMED IS:**

2 1. A direction control device for a ceiling fan having a canopy (13), a
3 body (10) with a motor retained therein, a hanger rod (12) suspended from said
4 canopy (13) and extended through the motor and a switch box (14) secured to a
5 bottom of the body (10), the direction control device comprising:

6 a direction control circuit (20) arranged in the switch box (14) of the
7 ceiling fan;

8 a remote receiver (30) arranged in an exterior position away from the
9 ceiling fan and electrically connected to the direction control circuit (20); and

10 wherein said remote receiver (30) is connected with conducting wires
11 (200) that are electrically connected to the direction control circuit (20) by a set
12 of connectors (21,22) via the canopy (13), the hanger rod (12) and the body (10).

13 2. The direction control device as claimed in claim 1, wherein the set of
14 connectors (21, 22) is composed of a female connector (22) electrically
15 connected to the direction control circuit (20) and a male connector (21)
16 electrically connected with the conducting wires (200) and connection lines of
17 the motor, wherein the male and female connectors (21,22) are correspondingly
18 connected together whereby the direction control circuit (20) is electrically
19 connected to the remote receiver (30).

20 3. The direction control device as claimed in claim 1, wherein the
21 conducting wires (200) are indoor wires pre-arranged inside a building.

22 4. The direction control device as claimed in claim 2, wherein the
23 conducting wires (200) are indoor wires pre-arranged inside a building.

24 5. The direction control device as claimed in claim 3, wherein the

1 direction control circuit (20) comprises:
2 a power supply unit (23) for supplying power to the direction control
3 circuit (20) via a female connector (22);
4 a detection circuit (24) for sensing signals received by the remote
5 receiver (20);
6 a microprocessor (25) connected to the detection circuit (24) for
7 receiving control signals from the detection circuit (24); and
8 a relay drive circuit (26) controlled by the microprocessor (25), wherein
9 the relay drive circuit (26) controls two relay switches (260) connected to coils of
10 the motor and input power via an activation capacitor (27), the male and female
11 connectors (21, 22) control the direction of the current flowing in the coils of the
12 motor.

13 6. The direction control device as claimed in claim 4, wherein the
14 direction control circuit (20) comprises:
15 a power supply unit (23) for supplying power to the direction control
16 circuit (20) via the female connector (22);
17 a detection circuit (24) for sensing signals received by the remote
18 receiver (20);
19 a microprocessor (25) connected to the detection circuit (24) for
20 receiving control signals from the detection circuit (24); and
21 a relay drive circuit (26) controlled by the microprocessor (25), wherein
22 the relay drive circuit (26) controls two relay switches (260) connected to coils of
23 the motor and input power via an activation capacitor (27), the male and female
24 connectors (21, 22) control the direction of the current flowing in the coils of the

1 motor.